

# NUMERICAL/CHRONOLOGICAL/ AUTHOR INDEX 1979-1985/86

An Index of Publications of the American Astronautical Society

Horace Jacobs

Robert H. Jacobs



ADVANCES IN THE ASTRONAUTICAL SCIENCES  
SCIENCE AND TECHNOLOGY SERIES

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VOLUME 12 / CHRONOLOGICAL  
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Artist's fantasy of a human or extraterrestrial being in space, by  
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AN AMERICAN



SOCIETY PUBLICATION

# **NUMERICAL/CHRONOLOGICAL/ AUTHOR INDEX 1979-1985/86**

**An Index of Publications of the American Astronautical Society**

**Horace Jacobs**  
**Robert H. Jacobs**

**ADVANCES IN THE ASTRONAUTICAL SCIENCES  
SCIENCE AND TECHNOLOGY SERIES**  
and other AAS publications

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## FOREWORD

This index volume presents a numerical/chronological index and an author index of all available articles and papers published by, for, or in conjunction with the American Astronautical Society from 1979 through 1985 to mid-1986. It is a companion volume for Numerical/Chronological/Author Index 1954-1978 published in 1979.

The Numerical/Chronological Index consists of three sections:

1. An index by AAS number in sequential order covering all papers that have appeared in proceedings volumes or their supplements. Included in this index are some International Academy of Astronautics papers, by IAA number or by AAS number assigned for identification purposes. IAA papers appear at the end of the AAS papers for a given year. The papers are listed in numerical order under the volume or volumes in which they were published. In each case, the conference at which the papers were presented is identified. Each number is followed by the title of the papers and the author(s). This is essentially a Citation Index in chronological/numerical order.
2. A chronological index of the contents of The Journal of the Astronautical Sciences (1979 to mid-1986) by volume and issue, with titles, authors, and pages cited.

The Author Index consists of an alphabetical listing of all authors whose papers were published by the American Astronautical Society from 1979 to mid-1986. In each case, the author's name and initials only are given. Names are followed by paper number and/or Journal volume and issue number and pages. It is necessary then to refer to the Numerical/Chronological Index for the complete citation.



Since the Numerical/Chronological Index has been prepared annually some minor variations in abbreviations and format may occur.

The following appendices appear in this volume:

Appendix I.....Conferences sponsored or co-sponsored by the American Astronautical Society (1979-1986)

Appendix II.....IAA Symposia for which the AAS publishes proceedings

Appendix III.....Publications of the American Astronautical Society

Appendix IV.....Books published for the American Astronautical Society (1979-1986)

A Subject Index will appear as a companion volume.

We consider this volume to be a most valuable reference tool in the field of astronautics and related disciplines in that, along with its earlier companion volume, it includes almost every available technical paper published by or for the American Astronautical Society in the first thirty years of the Space Age.

The Editors

## INDEX COVERAGE

THIS INDEX COVERS THE PERIOD 1979 THROUGH 1985 TO MID-1986.  
THE EARLIER VOLUME COVERS THE PERIOD 1954 THROUGH 1978.  
THIS VOLUME AND ITS EARLIER COMPANION VOLUME INCLUDE ALL AVAILABLE ARTICLES AND PAPERS THAT HAVE APPEARED IN THE FOLLOWING PUBLICATIONS OF THE AMERICAN ASTRONAUTICAL SOCIETY:

*THE JOURNAL OF THE ASTRONAUTICAL SCIENCES 1954-mid-1986*

*ASTRONAUTICAL SCIENCES REVIEW 1959-1962*

*ADVANCES IN THE ASTRONAUTICAL SCIENCES 1957-August 1986*  
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*SCIENCE AND TECHNOLOGY 1964-August 1986*  
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*AAS HISTORY SERIES 1977-1986*  
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*AAS MICROFICHE SERIES 1968-1986*  
*(Volumes 1-53)*

*SPECIAL VOLUMES PUBLISHED FOR OR IN CONJUNCTION WITH THE AAS*

IT IS A COMPLETE INDEX OF ALL AVAILABLE ARTICLES AND PAPERS  
PUBLISHED BY OR FOR THE AMERICAN ASTRONAUTICAL SOCIETY.  
ALMOST ALL CITATIONS CORRESPOND TO MATERIAL STILL AVAILABLE.  
A SUBJECT INDEX WILL APPEAR AS A COMPANION VOLUME.

# GLOSSARY FOR NUMERICAL/CHRONOLOGICAL/AUTHOR INDEX 1954-1978 AND 1979-85/86

AAAS	American Association for the Advancement of Science
AAS	American Astronautical Society
AAS His	<i>AAS History Series</i>
Adv	<i>Advances in the Astronautical Sciences</i>
AIAA	American Institute for Aeronautics and Astronautics
ASR	<i>Astronautical Sciences Review</i>
Bonn Proc.	Bonn Proceedings ( <i>Utilization of Space Shuttle and Spacelab, 1976</i> )
DGLR	Deutsche Gesellschaft für Luft- und Raumfahrt
His	<i>AAS History Series</i>
IAA	International Academy of Astronautics
IAF	International Astronautical Federation
JAS	<i>The Journal of the Astronautical Sciences</i> <i>Astronautics</i> <i>The Journal of Astronautics</i>
JBIS	<i>Journal of the British Interplanetary Society</i>
Mic	<i>AAS Microfiche Series</i>
Micro	<i>AAS Microfiche Series</i>
Sp v	Special AAS volume
S&T	<i>Science and Technology</i>



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**NUMERICAL/CHRONOLOGICAL  
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1979 - 1985 (1986 Partial)**

The following pages provide a Numerical/Chronological Index of AAS Technical papers published from 1979 to mid 1986. They are organized by the technical meeting at which the papers were presented. Papers are identified by AAS + year + number. Nearly all the papers indexed appear in proceedings volumes, all of which are available either in hard copy or microfiche from the publishers for the American Astronautical Society, Univelt, Inc., P.O. Box 28130, San Diego, California 92128.

The earlier companion volume, Numerical/Chronological/Author Index 1954-1978, covers all AAS papers for that period.

In addition to AAS papers, a number of papers presented at annual meetings of the International Astronautical Federation/International Academy of Astronautics but published by the AAS are listed with an IAF or IAA prefix for identification purposes. Likewise some papers published at a meeting of the Deutsche Gesellschaft für Luft- und Raumfahrt for which the AAS was a cosponsor are listed with a DGLR prefix. These special citations follow the AAS citations for the year in which the papers were presented.

Each citation includes the paper number, (AAS, IAF, IAA, or DGLR), the full title and author(s). The heading under which the papers are listed identifies the volume(s) in which they appear and the technical event at which they were presented.

Nearly all papers or proceedings volumes are available either in hard copy or on microfiche from Univelt, Inc., P.O. Box 28130, San Diego, California, 92128 -- publishers for the American Astronautical Society. Out-of-print books are published in microfiche form.



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- VOLUME 42      SCIENCE AND TECHNOLOGY, THE END OF AN ERA IN SPACE  
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Cooperation, by J.C.D. Blaine, 1976, 216p.  
(An AAS monograph, not the product of an AAS conference)
- \*AAS 76-188      Pioneering Stages of Modern Rocketry
- AAS 76-189      Spectacular Space Flights by the Soviet Union, 1950's-1960's
- AAS 76-190      Soviet Space Missions of the Early 1970's
- AAS 76-191      Millions of Pounds of Thrust
- AAS 76-192      The Probing of the Moon, Venus, and Mars by Unmanned  
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IAA 76-A01\* Crew Safety, D.K. Slayton

IAA 76-A02 Not Available

IAA 76-A03 Not Available

IAA 76-A04 Recovery from a Tumbling Condition in Space, G.S. Canetti

IAA 76-A05 Lunar Escape Systems Feasibility Study, J.O. Matzenauer

IAA 76-A06 Space Rescue and Other Space Operations from Existing Air-  
strips, R. Salkeld

IAA 76-A07 Not Available

IAA 76-A08 Not Available

IAA 76-A09 Use of Water Sprays in Space Rescue and Retrieval Operations,  
M.H. Kaplan, D.C. Freesland

IAA 76-A10 Not Available

IAA 76-A11 Space Shuttle Program Safety Overview, N.E. Brown

IAA 76-A12 Annual Survey of Recovery Capabilities, G.W. Heath

IAA 76-A13 Survey of Space Flight Safety Systems, Sixth Supplement,  
Survey Period July 1975 - June 1976, H.D. Wolf

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\* These numbers may also be designated "IAF".

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- (Tenth International Space Safety and Rescue Symposium,  
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October 1, 1977, Prague, Czechoslovakia)
- IAA 77-A31      Approach and Landing Test Project, D.K. Slayton, T.U. McElmurry
- IAA 77-A32\*     Non-Specific Training as a Factor to Ensure Space Flight  
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Solovyova
- IAA 77-A33      System Safety in Manned Space Flight, J.B. Hammack
- IAA 77-A34\*     The Synthesis of Control Algorithm for Maneuvering a Space  
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- IAA 77-A35      Survey of Space Flight Safety Systems, Seventh Supplement,  
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- IAA 77-A36      Designing Payloads for Safety on the Space Transportation  
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- IAA 77-A37\*     Principles to Develop a Model of Danger in Space, G.T.  
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- IAA 77-A38      Shuttle Remote Manipulator System Safety and Rescue Support  
Capabilities, J.W. Brown, G.D. Whitehead
- IAA 77-A39\*     Radiation Protection for Manned Orbital Stations, N.N. Gurovsky,  
E.E. Kovalev, V.M. Petrov
- IAA 77-A40      Not Available

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*Note: Only abstracts appear in Volume 54, Science and Technology and the  
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*\* Only an abstract or summary was available for publication.*



IAA 77-A41    The Probability of Decompression Sickness as a Result of  
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IAA 77-A42    Advanced Vehicle Concepts for Earth-Orbit Transportation and  
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IAA 77-A43    Survey of Recovery Capabilities, G.W. Heath

IAA 77-A43A   Worldwide Disaster and Rescue Response Employing Space-Borne  
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IAA 77-A73    A Space-Based Public Service Platform for Terrestrial Rescue  
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IAA 77-A75    Distress Detection, Location, and Communications Using  
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- IAA 78-A61      Annual Survey of Space Flight Safety Systems: 8th Supplement,  
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- IAA 78-A62      Not Assigned
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*Note: Only abstracts appear in Volume 54, Science and Technology and the papers, unless otherwise indicated, appear in full in Volume 40, AAS Microfiche Series.*

*\* Only an abstract was available for publication.*



**AAS TECHNICAL PAPERS  
1979**





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- (Seventeenth AAS Goddard Memorial Symposium, Space--New Opportunities for International Ventures, March 28-30, 1979, Washington, D.C.)
- AAS 79-040\* Not Available
- AAS 79-041    Space--New Opportunities for International Ventures, R.Gibson
- AAS 79-042    New Opportunities for International Ventures, P.Jankowitsch
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\* Unless otherwise indicated papers appear in Volume 49, Science and Technology.

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- AAS 81-065    Communications to 2000: A Forecast of the Demand and Capacity of U.S. Domestic Communications Satellites, S.W. Fordyce

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<sup>+</sup> A summary appears in Volume 42, AAS Microfiche Series.



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Proceedings: No AAS proceedings published

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AAS 84-060      Lecture Series: Volume II - Robotics - An Overview of  
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- \*AAS 83-519A      Dedicated Reusable Space Platforms - A New Economic Tool for  
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- AAS 84-100      Not Available
- AAS 84-101      Permanent Presence - Making It Work - Keynote Address, P.E.  
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\* *This article was not presented at the 1984 Goddard Memorial Symposium, but at the 18th European Space Symposium held in June 1983 in London. Since it could not be included in full in the volume Space: A developing Role for Europe, Volume 56, Science and Technology Series, it is now presented in the current volume. It also appears in full in Volume 46, AAS Microfiche Series.*

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- AAS 84-200      Space Propulsion for the 1990s - Opening Remarks, M.T. Constantine
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- AAS 84-202      Space Propulsion for the 1990s - Luncheon Address (Summary), S.I. Weiss
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- IAA 84-270 A Thirty-Year Perspective on Manned Space Safety and Rescue:  
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(June 21-22, 1984, Washington, D.C.)

Proceedings: No AAS proceedings published

No AAS numbers assigned

AIAA/AAS ASTRODYNAMICS CONFERENCE

(August 20-22, 1984, Bellevue, Washington)

Proceedings: Contact AIAA for information.

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*AAS 85-001A	Aerospace Guidance and Control in the University: Anticipated Trends, R.D. Culp
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For the full citation it is necessary to refer back to the Numerical/Chronological Index which is organized chronologically by year. Users of this index should not overlook the earlier companion volume. Numerical/Chronological/Author Index 1954-1978.

Following is an explanatory glossary:

AAS	Designation for an American Astronautical Society paper or article, followed by year and number
AAS His	<i>AAS History Series</i>
Adv	<i>Advances in the Astronautical Sciences</i>
His	<i>AAS History Series</i>
IAA	Designation for an International Academy of Astronautics paper or article, followed by year and number
JAS	<i>Journal of the Astronautical Sciences</i>
JBIS	<i>Journal of the British Interplanetary Society</i>
Mic	<i>AAS Microfiche Series</i>
S&T	<i>Science and Technology Series</i>



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# APPENDICES



## APPENDIX I

### CONFERENCES SPONSORED OR CO-SPONSORED BY THE AMERICAN ASTRONAUTICAL SOCIETY (1979-1986)

Second Annual Rocky Mountain Guidance and Control Conference, February 24-28, 1979, Keystone, Colorado  
(Volume 39, *Advances in the Astronautical Sciences*\*; Volume 31, *AAS Microfiche*†)

Space-New Opportunities for International Ventures, Seventeenth Goddard Memorial Symposium, March 28-30, 1979, Washington D.C.  
(Volume 49, *Science and Technology*\*\*; Volumes 2 and 3, *AAS History*++)

AAS/AIAA Astrodynamics Conference, June 25-27, 1979, Provincetown, Massachusetts  
(Volume 40-I and II, *Advances*; Volume 32, *AAS Microfiche*)

Remember the Future - The Apollo Legacy, July 20-21, 1979, San Francisco, California  
(Volume 50, *Science and Technology*)

Space Shuttle: Dawn of an Era, Twenty-Sixth Annual Meeting, October 29-November 1, 1979, Los Angeles, California  
(Volume 41-I and II, *Advances*; Volume 33, *AAS Microfiche*)

Third Annual Rocky Mountain Guidance and Control Conference, February 17-21, 1980, Keystone, Colorado  
(Volume 42, *Advances*)

Commercial Operations in Space 1980-2000, Eighteenth Goddard Memorial Symposium, March 27-28, 1980, Washington, D.C.  
(Volume 51, *Science and Technology*; Volume 3, *AAS History*; Volume 34, *AAS Microfiche*)

Shuttle/Spacelab - The New Transportation System and its Utilization, Third DGLR/AAS Symposium, April 28-30, 1980, Hannover, Germany  
(Volume 43, *Advances*)

\* Henceforth abbreviated as *Advances*

† *AAS Microfiche Series*

\*\* *AAS Science and Technology Series*

++ *AAS History Series*

- Space in the 1980s and Beyond, Seventeenth European Space Symposium,  
June 4-6, 1980, London, England  
(Volume 53, *Science and Technology*)
- Careers in Space, July 18-19, San Jose, California  
(Volume 49, *AAS Microfiche*)
- AIAA/AAS Astrodynamics Conference, August 11-13, 1980, Danvers,  
Massachusetts  
(Proceedings: Contact AIAA for information)
- Space - Enhancing Technological Leadership, Twenty-Seventh Annual  
Meeting, October 20-23, 1986, Boston, Massachusetts  
(Volume 44, *Advances*; Volume 35, *AAS Microfiche*)
- Fourth Annual Rocky Mountain Guidance and Control Conference, January 31-  
February 4, 1981, Keystone, Colorado  
(Volume 45, *Advances*; Volume 36, *AAS Microfiche*)
- International Space Technical Applications, Nineteenth Goddard Memorial  
Symposium, March 26-27, 1981, Washington, D.C.  
(Volume 52, *Science and Technology*; Volume 5, *AAS History*)
- The Case for Mars, April 29-May 2, 1981, Boulder, Colorado  
(Volume 57, *Science and Technology*)
- Fifth International System Safety Society Conference, July 26-31, 1981,  
Denver, Colorado  
(No AAS proceedings published)
- AAS/AIAA Astrodynamics Conference, August 3-5, 1981, North Lake Tahoe,  
Nevada  
(Volume 46-I and II, *Advances*; Volume 37, *AAS Microfiche*)
- Leadership in Space - For Benefits on Earth, Twenty-Eighth Annual  
Meeting, October 26-29, 1981, San Diego, California  
(Volume 47, *Advances*)
- International Symposium on Engineering Sciences and Mechanics, December  
29-31, 1981, Tainan, Taiwan  
(Volume 50-I and II, *Advances*; Volume 43, *AAS Microfiche*)
- Fifth Annual Rocky Mountain Guidance and Control Conference, January 30-  
February 3, 1982, Keystone, Colorado  
(Volume 48, *Advances*; Volume 38, *AAS Microfiche*)
- Spacelab, Space Platforms, and the Future, Twentieth Goddard Memorial  
Symposium, Fourth DGLR/AAS Symposium, March 17-19, 1982, Greenbelt,  
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(Volume 49, *Advances*)
- Space and Society - Challenges and Choices, April 14-16, 1982, Austin, Texas  
(Volume 59, *Science and Technology*)

- First Annual AAS Military Space Symposium, Military Space Systems and Operations: 1982 and Beyond, June 24-25, 1982, Arlington, Virginia  
(No proceedings published)
- AIAA/AAS Astrodynamics Conference, August 9-11, 1982, San Diego, California  
(Proceedings: Contact AIAA for information)
- Developing the Space Frontier, Twenty-Ninth Annual Meeting, October 25-27, 1982, Houston, Texas  
(Volume 52, *Advances*)
- Sixth Annual Rocky Mountain Guidance and Control Conference, February 5-9, 1983, Keystone, Colorado  
(Volume 51, *Advances*; Volume 44, *AAS Microfiche*)
- Space Applications at the Crossroads, Twenty-First Goddard Memorial Symposium, March 24-25, 1983, Greenbelt, Maryland  
(Volume 55, *Science and Technology*)
- Sixth Princeton/SSI Conference on Space Manufacturing, May 9-12, 1983, Princeton, New Jersey  
(Volume 53, *Advances*)
- Space: A Developing Role for Europe, Eighteenth European Space Symposium, June 6-9, 1983, London, England  
(Volume 56, *Science and Technology*; Volume 46, *AAS Microfiche*)
- Second Annual AAS Military Space Symposium, June 7-8, 1983, Washington, D.C.  
(No proceedings published)
- AAS/AIAA Astrodynamics Conference, August 22-25, 1983, Lake Placid, New York  
(Volume 54-I and II, *Advances*; Volume 45, *AAS Microfiche*)
- Space Operations for the 80s and 90s, Thirtieth Annual Meeting, October 3-5, 1983, Colorado Springs, Colorado  
(Volume 47, *AAS Microfiche*)
- Seventh Annual Rocky Mountain Guidance and Control Conference, February 4-8, 1984, Keystone, Colorado  
(Volume 55, *Advances*, Volume 48, *AAS Microfiche*)
- Permanent Presence - Making it Work, Twenty-Second Goddard Memorial Symposium, March 15-16, 1984, Greenbelt, Maryland  
(Volume 60, *Science and Technology*)
- Third Annual AAS Military Space Symposium, Peace and Security Through Space, June 21-22, 1984, Washington, D.C.  
(No proceedings published)
- The Case for Mars II, July 10-14, 1984, Boulder, Colorado  
(Volume 62, *Science and Technology*)

- AIAA/AAS Astrodynamics Conference, August 20-22, 1984, Bellevue, Washington  
(Proceedings: Contact AIAA for information)
- From Spacelab to Space Station, Fifth DGLR/AAS Symposium, October 3-5, 1984,  
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(Volume 56, *Advances*)
- Space Propulsion for the 1990s, Thirty-First Annual Meeting, October 22-24,  
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(Volume 61, *Science and Technology*)
- Fourth International Conference on Applied Numerical Modeling, December  
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(Volume 63, *Science and Technology*)
- Eighth Annual Rocky Mountain Guidance and Control Conference, February 2-6,  
1985, Keystone, Colorado  
(Volume 57, *Advances*; Volume 50, *AAS Microfiche*)
- Europe/United States Space Activities, Twenty-Third Goddard Memorial  
Symposium/Nineteenth European Space Symposium, March 27-29, 1985  
(Volume 61, *Science and Technology*)
- Fourth Annual Space Development Conference, April 25-28, 1985, Washington,  
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- International Space Policy: Options for the Twentieth Century and Beyond,  
May 16-17, 1985, Atlanta, Georgia  
(No AAS proceedings planned)
- Fourth Annual AAS Military Space Symposium, Peace and Security Through  
Space, July 10-11, 1985, Washington, D.C.  
(No proceedings published)
- AAS/AIAA Astrodynamics Conference, August 12-15, 1985, Vail, Colorado  
(Volume 58-I and II, *Advances*, Volume 51, *AAS Microfiche*)
- International Symposium: Towards Columbus and Space Station, October 2-4,  
1985, Bonn/Bad Godesberg, Germany  
(Published as a DGLR volume)
- Space Station Beyond IOC: What and Why?, Thirty-Second Annual Meeting,  
November 6-7, 1985, Los Angeles, California  
(Volume 59, *Advances*)
- Space Exploitation and Utilization, First AAS/JRS Symposium, December  
15-19, 1985, Honolulu, Hawaii  
(Volume 60, *Advances*; Volume 52, *AAS Microfiche*)
- Ninth Annual Rocky Mountain Guidance and Control Conference, February 1-5,  
1986, Keystone, Colorado  
(Volume 61, *Advances*; Volume 53, *AAS Microfiche*)



The Human Quest in Space, Twenty-Fourth Goddard Memorial Symposium, March 20-21, 1986, Greenbelt, Maryland  
(Volume 65, *Science and Technology*)

International Symposium on Composite Materials and Structuring, June 10-13, 1986, Beijing, China  
(No proceedings published)

Fifth Annual AAS Military Space Symposium, Military in Space: A Look into the Future, July 30-31, 1986  
(No proceedings published)

AIAA/AAS Astrondynamics Conference, August 18-20, 1986, Williamsburg, Virginia  
(Proceedings: Contact AIAA for information)

International Conference on Tethers in Space, September 17-19, 1986, Arlington, Virginia  
(Volume 62, *Advances*)

Aerospace: Century XXI, Thirty-Third Annual AAS Meeting, October 26-29, 1986, Boulder, Colorado  
(*Advances* and *AAS Microfiche*)



## APPENDIX II

### IAA SYMPOSIA FOR WHICH THE AAS PUBLISHES PROCEEDINGS (1979-1986)

30th International Astronautical Federation (IAF) Congress, September 16-22, 1979, Munich, Germany

12th IAA International Space Safety and Rescue Symposium\* (Volume 39, *AAS Microfiche*; Volume 54, *Science and Technology*)

13th IAA History Symposium<sup>+</sup> (Proceedings: Forthcoming in *AAS History Series*)

31st International Astronautical Federation (IAF) Congress, September 21-28, 1980, Tokyo, Japan

13th IAA International Space Safety and Rescue Symposium (Volume 41-1, *AAS Microfiche*; Volume 54, *Science and Technology*)

14th IAA History Symposium (Proceedings: Forthcoming in *AAS History Series*)

32nd International Astronautical Federation (IAF) Congress, September 6-12, 1981, Rome, Italy

14th IAA International Space Safety and Rescue Symposium (Volume 41-2, *AAS Microfiche*; Volume 54, *Science and Technology*)

15th IAA History Symposium (Proceedings: Forthcoming in *AAS History Series*)

33rd International Astronautical Federation (IAF) Congress, September 27-October 2, 1982, Paris, France

15th IAA International Space Safety and Rescue Symposium (Volume 58, *Science and Technology*)

16th IAA History Symposium (Proceedings: Forthcoming in *AAS History Series*)

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\* All earlier IAA International Space and Safety and Rescue Symposia have been published in the AAS Science and Technology Series and/or the AAS Microfiche Series.

<sup>+</sup> All earlier IAA History Symposia have been published, or will be published, in the AAS History Series.

- 34th International Astronautical Federation (IAF) Congress, October 10-15,  
1983, Budapest, Hungary  
16th IAA International Space Safety and Rescue Symposium (Volume 58,  
*Science and Technology*)  
17th IAA History Symposium (Proceedings: Forthcoming in *AAS History  
Series*)
- 35th International Astronautical Federation (IAF) Congress, October 7-13,  
1984, Lausanne, Switzerland  
17th IAA International Space Safety and Rescue Symposium (Volume 64,  
*Science and Technology*)  
18th IAA History Symposium (Proceedings: Forthcoming in *AAS History  
Series*)
- 36th International Astronautical Federation (IAF) Congress, October 7-12,  
1985, Stockholm, Sweden  
18th IAA International Space Safety and Rescue Symposium (Volume 64,  
*Science and Technology*)  
19th IAA History Symposium (Proceedings: Forthcoming in *AAS History  
Series*)
- 37th International Astronautical Federation (IAF) Congress, October 4-11,  
1986, Innsbruck, Austria  
19th IAA International Space Safety and Rescue Symposium (Proceedings:  
Forthcoming in *AAS Science and Technology Series*)  
20th IAA History Symposium (Proceedings: Forthcoming in *AAS History  
Series*)

## APPENDIX III

### PUBLICATIONS OF THE AMERICAN ASTRONAUTICAL SOCIETY

Following are the principal publications of the American Astronautical Society:

#### *JOURNAL OF THE ASTRONAUTICAL SCIENCES (1954- )*

Published quarterly and distributed by AAS Business Office, 6212-B Old Keene Mill Court, Springfield, VA 22152. Back issues available from Univelt, Inc., P.O. Box 28130, San Diego, CA 92128.

#### *SPACE TIMES (1986- )*

Published bi-monthly and distributed by AAS Business Office, 6212-B Old Keene Mill Court, Springfield, VA 22152., Virginia 22152

#### *AAS NEWSLETTER (1962-1985)*

Incorporated in *Space Times*. Back issues available from AAS Business Office, 6212-B Old Keene Mill Court, Springfield, VA 22152.

#### *ASTRONAUTICAL SCIENCES REVIEW (1959-1962)*

Incorporated in *Space Times*. Back issues still available from Univelt, Inc., P.O. Box 28130, San Diego, CA 92128.

#### *ADVANCES IN THE ASTRONAUTICAL SCIENCES (1957- )*

Proceedings of major AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, CA 92128.

#### *SCIENCE AND TECHNOLOGY SERIES (1964- )*

Supplement to *Advances in the Astronautical Sciences*. Proceedings and monographs, most of them based on AAS technical meetings. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, CA 92128

#### *AAS HISTORY SERIES (1977- )*

Supplement to *Advances in the Astronautical Sciences*. Selected works in the field of aerospace history under the editorship of R. Cargill Hall. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, CA 92128.

#### *AAS MICROFICHE SERIES (1968- )*

Supplement to *Advances in the Astronautical Sciences*. Consists principally of technical papers not included in the hard-copy volume. Published and distributed for the American Astronautical Society by Univelt, Inc., P.O. Box 28130, San Diego, CA 92128.

Subscriptions to the *Journal* and the *Space Times* should be ordered from the AAS Business Office. Back issues of the *Journal* and all books and microfiche should be ordered from Univelt, Inc.

## APPENDIX IV

### BOOKS/MICROFICHE PUBLISHED FOR THE AMERICAN ASTRONAUTICAL SOCIETY

#### ADVANCES IN THE ASTRONAUTICAL SCIENCES 1979-1986

Series Editor: H. Jacobs

*Guidance and Control* 1979, Volume 39, ed. Robert D. Culp, 1979, 492p

*Astrodynamics* 1979, Volume 40-I, eds. Paul A. Penzo, Bernard Kaufman,  
Louis Friedman, Richard Battin, 1980, 494p

*Astrodynamics* 1979, Volume 40-II, eds. Paul A. Penzo, Bernard Kaufman,  
Louis Friedman, Richard Battin, 1980, 502p

*Space Shuttle: Dawn of an Era*, Volume 41-I, eds. William F. Rector, III,  
Paul A. Penzo, 1980, 452p

*Space Shuttle: Dawn of an Era*, Volume 41-II, eds. William F. Rector, III,  
Paul A. Penzo, 1980, 528p

*Guidance and Control* 1980, Volume 42, ed. Louis A. Morine, 1980, 738p

*Shuttle/Spacelab - The New Transportation System and its Utilization*,  
eds. Dietrich E. Koelle, George V. Butler, 1981, 342p

*Space - Enhancing Technological Leadership*, Volume 44, ed. Lawrence P.  
Greene, 1981, 580p

*Guidance and Control* 1981, Volume 45, ed. Edward J. Bauman, 1981, 506p

*Astrodynamics* 1981, Volume 46-I, eds. Alan L. Friedlander, Paul J. Cefola,  
Bernard Kaufman, Walt Williamson, G.T. Tseng, 1982, 552p

*Astrodynamics* 1981, Volume 46-II, eds. Alan L. Friedlander, Paul J. Cefola,  
Bernard Kaufman, Walt Williamson, G.T. Tseng, 1982, 572p

*Leadership in Space-For Benefits on Earth*, Volume 47, ed. William F.  
Rector, III, 1982, 310p

*Guidance and Control* 1982, Volume 48, eds. Robert D. Culp, Edward J.  
Bauman, W.E. Dorroh, Jr., 1982, 558p

- Spacelab, Space Platforms, and the Future*, Volume 49, eds. Peter M. Bainum, Dietrich E. Koelle, 1982, 502p
- Proceedings on an International Symposium on Engineering Sciences and Mechanics*, Volume 50-I, eds. Han-Min Hsia, Richard W. Longman, You-Li Chou, 1983, 688p
- Proceedings on an International Symposium on Engineering Sciences and Mechanics*, Volume 50-II, eds. Han-Min Hsia, Richard W. Longman, You-Li Chou, 1983, 884p
- Guidance and Control 1983*, Volume 51, eds. Edward J. Bauman, Zubin W. Emsley, 1983, 494p
- Developing the Space Frontier*, Volume 52, eds. Albert Naumann, Grover Alexander, 1983, 436p
- Space Manufacturing 1983*, Volume 53, eds. James D. Burke, April S. Whitt, 1983, 496p
- Astrodynamics 1983*, Volume 54-I, eds. G.T. Tseng, Paul J. Cefola, Peter M. Bainum, David A. Levinson, 1984, 674p
- Astrodynamics 1983*, Volume 54-II, eds. G.T. Tseng, Paul J. Cefola, Peter M. Bainum, David A. Levinson, 1984, 706p
- Guidance and Control 1984*, Volume 55, eds. Robert D. Culp, Parker S. Stafford, 1984, 500p
- From Spacelab to Space Station*, Volume 56, eds. H. Stoewer, Peter M. Bainum, 1985, 270p
- Guidance and Control 1985*, eds. Robert D. Culp, Edward J. Bauman, Charles A. Cullian, 1985, 618p
- Astrodynamics 1985*, Volume 58-I, eds. Bernard Kaufman, Joseph J.F. Liu, Robert A. Calico, Felix R. Hoots, 1986, 786p
- Astrodynamics 1985*, Volume 58-II, eds. Bernard Kaufman, Joseph J.F. Liu, Robert A. Calico, Felix R. Hoots, 1986, 770p
- Space Station Beyond IOC*, Volume 59, ed. M. Jack Friedenthal, 1986, 188p
- Space Exploitation and Utilization*, Volume 60, eds. Gayle L. May, Peter M. Bainum, Kenji Ikeda, Tamiya Nomura, Tatsuo Yamanaka, Ryojiro Akiba, 1986, 740p
- Guidance and Control 1986*, Volume 61, eds. Robert D. Culp, John C. Durrett, 1986, 460p



SCIENCE AND TECHNOLOGY SERIES 1979-1986

Series Editor: H. Jacobs

*Handbook of Soviet Lunar and Planetary Exploration*, Volume 47, Nicholas L. Johnson, 1979, 276p

*Handbook of Soviet Manned Space Flight*, Volume 48, Nicholas L. Johnson, 1980, 474p

*Space - New Opportunities for International Ventures*, Volume 49, ed. William C. Hayes, Jr., 1980, 300p

*Remember the Future - The Apollo Legacy*, Volume 50, ed. Stan Kent, 1980, 218p

*Commercial Operations in Space 1980-2000*, Volume 51, eds. John L. McLucas, Charles Sheffield, 1981, 214p

*International Space Technical Applications*, Volume 52, eds. Andrew Adelman, Peter M. Bainum, 1981, 186p

*Space in the 1980s and Beyond*, Volume 53, ed. Peter M. Bainum, 1981, 302p

*Space Safety and Rescue 1979-1981*, Volume 54, ed. Jeri W. Brown, 1983, 456p

*Space Applications at the Crossroads*, Volume 55, eds. John H. McElroy, E. Larry Heacock, 1983, 308p

*Space: A Developing Role for Europe*, Volume 56, eds. Len J. Carter, Peter M. Bainum, 1984, 278p

*The Case for Mars*, Volume 57, ed. Penelope J. Boston, 1984, 348p

*Space Safety and Rescue 1982-1983*, Volume 58, ed. Gloria W. Heath, 1984, 378p

*Space and Society - Challenges and Choices*, Volume 59, eds. Paul Anaejionu, Nathan C. Goldman, Philip J. Meeks, 1984, 442p

*Permanent Presence - Making It Work*, Volume 60, ed. Ivan Bekey, 1985, 190p

*Europe/United States Space Activities - with a Space Propulsion Supplement*, Volume 61, eds. Peter M. Bainum, Friedrich von Bun, 1985, 442p

*The Case for Mars II*, Volume 62, ed. Christopher P. McKay, 1985, 730p

*Proceedings of 4th International Conference on Applied Numerical Modeling*, Volume 63, eds. Han-Min Hsia, You-Li Chou, Shu-Yi Wang, Sheng-Jii Hsieh, 1986, 800p

*Space Safety and Rescue 1984-1985*, Volume 64, ed. Gloria W. Heath, 1986, 400p

*The Human Quest in Space*, Volume 65, eds. Gerald L. Burdett, Gerald A. Soffen, Donald Hearth, 1986, 329

AAS HISTORY SERIES 1979-1986

Series Editors: (Volumes 1-5) Eugene M. Emme;  
(Volumes 6-7) R. Cargill Hall

*Twenty-five Years of the American Astronautical Society: Historical Reflections and Projections 1954-1979*, Volume 2, ed. Eugene M. Emme, 1980, 248p

*Between Sputnik and the Shuttle: New Perspectives on American Astronautics 1957-1980*, Volume 3, ed. Frederick C. Durant, III, 1981, 350p

*The Endless Space Frontier: A History of the House Committee on Science and Astronautics 1959-1978*, Volume 4, Ken Hechler, ed. Albert E. Eastman, 1982, 460p

*Science and Fiction and Space Futures: Past and Present*, Volume 5, ed. Eugene M. Emme, 1982, 278p

*First Steps Toward Space*, Volume 6, eds. Frederick C. Durant, III, George S. James, 1986, 318p

*History of Rocketry and Astronautics*, Volume 7-I, ed. R. Cargill Hall, 1986, 250p

*History of Rocketry and Astronautics*, Volume 7-II, ed. R. Cargill Hall, 1986, 502p

AAS MICROFICHE SERIES 1979-1986

Series Editor: H. Jacobs

*The Future U.S. Space Program*, Volume 30, (Supplement to Volume 38, *Advances in the Astronautical Sciences*), 1979, 5 papers, 60 abstracts, 6 microfiche

*Guidance and Control 1979*, Volume 31, (Supplement to Volume 39, *Advances in the Astronautical Sciences*), 1979, 3 papers, 2 microfiche

*Astrodynamics 1979*, Volume 32, (Supplement to Volume 40, *Advances in the Astronautical Sciences*), 1979, 27 papers, 13 microfiche

*Space Shuttle: Dawn of an Era*, Volume 33, (Supplement to Volume 41, *Advances in the Astronautical Sciences*), 1980, 6 papers, 2 microfiche

*Commercial Operations in Space*, Volume 34, (Supplement to Volume 51, *Science and Technology*), 1981, 2 papers, 1 microfiche

*Space - Enhancing Technological Leadership*, Volume 35, (Supplement to Volume 44, *Advances in the Astronautical Sciences*), 1981, 3 papers, 2 microfiche



- Guidance and Control* 1981, Volume 36, (Supplement to Volume 45, *Advances in the Astronautical Sciences*), 1981, 7 papers, 5 microfiche
- Astrodynamics* 1981, Volume 37, (Supplement to Volume 46, *Advances in the Astronautical Sciences*), 1981, 41 papers, 21 microfiche
- Guidance and Control* 1982, Volume 38, (Supplement to Volume 48, *Advances in the Astronautical Sciences*), 1982, 1 paper, 1 microfiche
- Twelfth International Space Safety and Rescue Symposium*, Volume 39, (Supplement to Volume 54, *Science and Technology*), 1982, 11 papers, 5 microfiche
- Ninth, Tenth, and Eleventh International Space Safety and Rescue Symposia*, Volume 40, (Supplement to Volume 54, *Science and Technology*), 1982, 33 papers, 6 microfiche
- Thirteenth and Fourteenth International Space Safety and Rescue Symposia*, Volume 41, (Supplement to Volume 54, *Science and Technology*), 1982, 25 papers, 5 microfiche
- Spacelab, Space Platforms and the Future*, Volume 42, (Supplement to Volume 49, *Advances in the Astronautical Sciences*), 1982, 2 papers, 1 microfiche
- Engineering Sciences and Mechanics*, Volume 43, (Supplement to Volume 50, *Advances in the Astronautical Sciences*), 1983, 2 papers, 2 microfiche
- Guidance and Control* 1983, Volume 44, (Supplement to Volume 51, *Advances in the Astronautical Sciences*), 1983, 2 papers, 2 microfiche
- Astrodynamics* 1983, Volume 45, (Supplement to Volume 54, *Advances in the Astronautical Sciences*), 1984, 33 papers, 13 microfiche
- Space: A Developing Role for Europe*, Volume 46, (Supplement to Volume 56, *Science and Technology*), 1984, 9 papers, 5 microfiche
- Space Operations for the 80s and 90s*, Volume 47, 1984, 7 papers, 3 microfiche
- Guidance and Control* 1984, Volume 48, (Supplement to Volume 55, *Advances in the Astronautical Sciences*), 1984, 6 papers, 4 microfiche
- Careers in Space*, Volume 49, 1984, 6 papers, 2 microfiche
- Guidance and Control* 1985, Volume 50, (Supplement to Volume 57, *Advances in the Astronautical Sciences*), 1985, 7 papers, 3 microfiche
- Astrodynamics* 1985, Volume 51, (Supplement to Volume 58, *Advances in the Astronautical Sciences*), 1986, 55 papers, 22 microfiche

*Space Exploitation and Utilization*, Volume 52, (Supplement to Volume 60, *Advances in the Astronautical Sciences*), 1986, 4 papers, 2 microfiche

*Guidance and Control 1986*, Volume 53, (Supplement to Volume 61, *Advances in the Astronautical Sciences*), 1986, 7 papers, 3 microfiche

## PROCEEDINGS OF AAS ANNUAL MEETINGS

Following are proceedings volumes for recent AAS Annual Meetings:

- 32nd Space Station Beyond IOC, Volume 59, *Advances in the Astronautical Sciences*, 1986  
(1985)
- 31st Space Propulsion for the 1990s, Volume 61, *Science and Technology Series*, pp355-422, 1985  
(1984)
- 30th Space Operations for the 80s and 90s, Volume 47, *AAS Microfiche Series* (7 papers only)  
(1983)
- 29th Developing the Space Frontier, Volume 52, *Advances in the Astronautical Sciences*, 1983  
(1982)
- 28th Leadership in Space for Benefits on Earth, Volume 47, *Advances in the Astronautical Sciences*, 1982  
(1981)
- 27th Space - Enhancing Technological Leadership, Volume 44, *Advances in the Astronautical Sciences*, 1981  
(1980) Microfiche Supplement: Volume 35, *AAS Microfiche Series*
- 26th Space Shuttle: Dawn of an Era, Volume 41, *Advances in the Astronautical Sciences*, 1980  
(1979) Microfiche Supplement: Volume 33, *AAS Microfiche Series*
- 25th The Future U.S. Space Program, Volume 38, *Advances in the Astronautical Sciences*, 1979  
(1978) Microfiche Supplement: Volume 30, *AAS Microfiche Series*
- 24th Space Shuttle Spacelab Utilization, Volume 37, *Advances in Astronautical Sciences*, 1978  
(1978)
- 23rd The Industrialization of Space, Volume 36, *Advances in the Astronautical Sciences*, 1978  
(1977) Microfiche Supplement: Volume 28, *AAS Microfiche Series*
- 22nd The Bicentennial Space Symposium - New Themes for Space: Mankind's Future Needs and Aspirations, Volume 35, *Advances in the Astronautical Sciences*, 1977  
(1976)
- 21st Space Shuttle Missions of the 80s, Volume 32, *Advances in the Astronautical Sciences*  
(1975) Microfiche Supplement: Volume 25, *AAS Microfiche Series*

AAS GODDARD MEMORIAL SYMPOSIA

[1961-1986]

- First (1961): Interactions of Space Vehicles with an Ionized Atmosphere (International Series of Monographs in Aeronautics and Astronautics, Division IX Symposia, Vol. 18, Pergamon Press, 1965)
- Second (1962): Torques and Attitude Sensing in Satellites (Mathematics and Mechanics, Vol. 7, Academic Press, New York, 1964)
- Third (1965): Scientific Experiments for Manned Orbital Flight (Vol. 4, Advances in the Astronautical Sciences, 1965)
- Fourth (1966): Space Age in Fiscal Year 2001 (Vol. 10, Science and Technology, 1967)
- Fifth (1967): Voyage to the Planets (Vol. 16, Science and Technology, 1968)
- Sixth (1968): Role of the Space Program in the Development of Modern Society (Technology and Social Progress - Synergism or Conflict? Vol. 18, Science and Technology, 1969)
- Seventh (1969): Reducing the Cost of Space Transportation (Vol. 21, Science and Technology, 1969)
- Eighth (1970): Aerospace Systems Development: Implications for the Law (not published)
- Ninth (1971): International Cooperation in Space Operations (Vol. 27, Science and Technology, 1971)
- Tenth (1972): Transfer of Space Technology to Community and Industry (Vol. 29, Science and Technology, 1972)
- Eleventh (1973): The Second Fifteen Years in Space (Vol. 31, Science and Technology, 1973)
- Twelfth (1974): Progress Report on Skylab and Pioneer Programs (Skylab and Pioneer Report, Vol. 36, Science and Technology, 1975)
- Thirteenth (1975): Future Space Activities (Vol. 40, Science and Technology, 1976)
- Fourteenth (1976): Satellite Communications In the Next Decade (Vol. 44, Science and Technology, 1977)
- Fifteenth (1977): Export of Aerospace Technology (Vol. 46, Science and Technology, 1978)
- Sixteenth (1978): Space Shuttle and Spacelab Utilization (Vol. 37, Advances in the Astronautical Sciences, 1978)
- Seventeenth (1979): Making Space Work (Vol. 49, Science and Technology, 1980; Vols. 2 and 3, AAS History Series, 1980)
- Eighteenth (1980): Commercial Operations in Space 1980-2000 (Vol. 51, Science and Technology; Vol. 3, AAS History Series, 1981)
- Nineteenth (1981): International Space Technical Applications (Vol. 52, Science and Technology, 1981; Vol. 5 AAS History Series)
- Twentieth (1982): Spacelab, Space Platforms and the Future (Vol. 49, Advances in the Astronautical Sciences, 1982)
- Twenty-First (1983): Space Applications at the Crossroads (Vol. 55, Science and Technology, 1983)
- Twenty-Second (1984): Permanent Presence - Making It Work (Vol. 60, Science and Technology, 1985)
- Twenty-Third (1985): Europe/United States Space Activities (Vol. 61, Science and Technology, 1985)
- Twenty-Fourth (1986): The Human Quest in Space (Vol. 65, Science and Technology, 1986)

## AAS/AIAA ASTRODYNAMICS CONFERENCES

An astrodynamics conference is held each year under the joint sponsorship of the American Astronautical Society and the American Institute of Aeronautics and Astronautics. The two societies alternate in publishing the proceedings of these conferences.

Astroynamics 1985 appears as Volume 58, *Advances in the Astronautical Sciences* along with a microfiche supplement, Volume 51, *AAS Microfiche Series*. The two publications present the complete proceedings of the AAS/AIAA Astroynamics Conference 1985.

Earlier astrodynamics proceedings available through the American Astronautical Society's publishers are:

<i>Astroynamics</i> 1983	Volume 54 I & II <i>Advances in the Astronautical Sciences</i> Volume 45, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1981	Volume 46 I & II <i>Advances in the Astronautical Sciences</i> Volume 37, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1979	Volume 40 I & II <i>Advances in the Astronautical Sciences</i> Volume 32, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1977	Volume 27, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1975	Volume 26, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1973	Volume 21, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1971	Volume 20, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1968	Volume 7, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1966	Volume 11, <i>Science and Technology</i> Volume 2, <i>AAS Microfiche Series</i>
<i>Astroynamics</i> 1965	Volume 9, <i>Science and Technology</i>

All these proceedings are available from Univelt, Inc., P.O. Box 28130, San Diego, California 92128, publishers for the American Astronautical Society.

*Proceedings of the Rocky Mountain  
Guidance and Control Conferences are available as follows:*

*Guidance and Control 1986, Volume 61,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 53, AAS Microfiche Series*

*Guidance and Control 1985, Volume 57,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 50, AAS Microfiche Series*

*Guidance and Control 1984, Volume 55,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 48, AAS Microfiche Series*

*Guidance and Control 1983, Volume 51,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 44, AAS Microfiche Series*

*Guidance and Control 1982, Volume 48,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 38, AAS Microfiche Series*

*Guidance and Control 1981, Volume 45,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 36, AAS Microfiche Series*

*Guidance and Control 1980, Volume 42,  
Advances in the Astronautical Sciences;*

*Guidance and Control 1979, Volume 39,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 31, AAS Microfiche Series*

*Guidance and Control 1978, Volume 29,  
AAS Microfiche Series  
(Includes one paper from earlier conference)*

*Order from Univelt, Inc., P.O. Box 28130, San Diego, CA 92128*



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- 30th Space Operations for the 80s and 90s, Volume 47, *AAS Microfiche Series* (7 papers only)  
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(1978) Microfiche Supplement: Volume 30, *AAS Microfiche Series*
- 24th Space Shuttle Spacelab Utilization, Volume 37, *Advances in Astronautical Sciences*, 1978  
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- 23rd The Industrialization of Space, Volume 36, *Advances in the Astronautical Sciences*, 1978  
(1977) Microfiche Supplement: Volume 28, *AAS Microfiche Series*
- 22nd The Bicentennial Space Symposium - New Themes for Space: Mankind's Future Needs and Aspirations, Volume 35, *Advances in the Astronautical Sciences*, 1977  
(1976)
- 21st Space Shuttle Missions of the 80s, Volume 32, *Advances in the Astronautical Sciences*  
(1975) Microfiche Supplement: Volume 25, *AAS Microfiche Series*



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- First (1961): Interactions of Space Vehicles with an Ionized Atmosphere (International Series of Monographs in Aeronautics and Astronautics, Division IX Symposia, Vol. 18, Pergamon Press, 1965)
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- Third (1965): Scientific Experiments for Manned Orbital Flight (Vol. 4, Advances in the Astronautical Sciences, 1965)
- Fourth (1966): Space Age in Fiscal Year 2001 (Vol. 10, Science and Technology, 1967)
- Fifth (1967): Voyage to the Planets (Vol. 16, Science and Technology, 1968)
- Sixth (1968): Role of the Space Program in the Development of Modern Society (Technology and Social Progress - Synergism or Conflict? Vol. 18, Science and Technology, 1969)
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- Twelfth (1974): Progress Report on Skylab and Pioneer Programs (Skylab and Pioneer Report, Vol. 36, Science and Technology, 1975)
- Thirteenth (1975): Future Space Activities (Vol. 40, Science and Technology, 1976)
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- Seventeenth (1979): Making Space Work (Vol. 49, Science and Technology, 1980; Vols. 2 and 3, AAS History Series, 1980)
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- Nineteenth (1981): International Space Technical Applications (Vol. 52, Science and Technology, 1981; Vol. 5 AAS History Series)
- Twentieth (1982): Spacelab, Space Platforms and the Future (Vol. 49, Advances in the Astronautical Sciences, 1982)
- Twenty-First (1983): Space Applications at the Crossroads (Vol. 55, Science and Technology, 1983)
- Twenty-Second (1984): Permanent Presence - Making It Work (Vol. 60, Science and Technology, 1985)
- Twenty-Third (1985): Europe/United States Space Activities (Vol. 61, Science and Technology, 1985)
- Twenty-Fourth (1986): The Human Quest in Space (Vol. 65, Science and Technology, 1986)

## AAS/AIAA ASTRODYNAMICS CONFERENCES

An astrodynamics conference is held each year under the joint sponsorship of the American Astronautical Society and the American Institute of Aeronautics and Astronautics. The two societies alternate in publishing the proceedings of these conferences.

Astrodynamics 1985 appears as Volume 58, *Advances in the Astronautical Sciences* along with a microfiche supplement, Volume 51, *AAS Microfiche Series*. The two publications present the complete proceedings of the AAS/AIAA Astrodynamics Conference 1985.

Earlier astrodynamics proceedings available through the American Astronautical Society's publishers are:

<i>Astrodynamics</i> 1983	Volume 54 I & II <i>Advances in the Astronautical Sciences</i> Volume 45, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1981	Volume 46 I & II <i>Advances in the Astronautical Sciences</i> Volume 37, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1979	Volume 40 I & II <i>Advances in the Astronautical Sciences</i> Volume 32, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1977	Volume 27, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1975	Volume 26, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1973	Volume 21, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1971	Volume 20, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1968	Volume 7, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1966	Volume 11, <i>Science and Technology</i> Volume 2, <i>AAS Microfiche Series</i>
<i>Astrodynamics</i> 1965	Volume 9, <i>Science and Technology</i>

All these proceedings are available from Univelt, Inc., P.O. Box 28130, San Diego, California 92128, publishers for the American Astronautical Society.

*Proceedings of the Rocky Mountain  
Guidance and Control Conferences are available as follows:*

*Guidance and Control 1986, Volume 61,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 53, AAS Microfiche Series*

*Guidance and Control 1985, Volume 57,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 50, AAS Microfiche Series*

*Guidance and Control 1984, Volume 55,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 48, AAS Microfiche Series*

*Guidance and Control 1983, Volume 51,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 44, AAS Microfiche Series*

*Guidance and Control 1982, Volume 48,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 38, AAS Microfiche Series*

*Guidance and Control 1981, Volume 45,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 36, AAS Microfiche Series*

*Guidance and Control 1980, Volume 42,  
Advances in the Astronautical Sciences;*

*Guidance and Control 1979, Volume 39,  
Advances in the Astronautical Sciences;  
Microfiche Supplement: Volume 31, AAS Microfiche Series*

*Guidance and Control 1978, Volume 29,  
AAS Microfiche Series  
(Includes one paper from earlier conference)*

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## JOINT AAS/DGLR CONFERENCE PROCEEDINGS

FROM SPACELAB TO SPACE STATION, FIFTH DGLR/AAS SYMPOSIUM, VOLUME 56, ADVANCES IN THE ASTRONAUTICAL SCIENCES, Eds. H. STOEWER, PETER M. BAINUM, 1985, 270p, HARD COVER \$50

*Presents more Spacelab results including in-flight performance and experience but focuses on (1) the proposed space station architecture and technology especially communications power systems, life support, and thermal control and (2) space station plans, concepts and user requirements. A policy makers forum discussion on space station and a summary of space shuttle payloads and experiments current as of September 1984 are appended. Index. Based on a symposium held October 3-5, 1984 in Hamburg, Germany.*

SPACELAB, SPACE PLATFORMS AND THE FUTURE, VOLUME 49, ADVANCES IN THE ASTRONAUTICAL SCIENCES, Eds. P.M. BAINUM, D.E. KOELLE, 1982, 502p, HARD COVER \$55; SOFT COVER \$45; MICROFICHE SUPPLEMENT \$5

*Based on proceedings of the Fourth Joint AAS/DGLR and 20th Goddard Memorial Symposia, March 1982, at the NASA Goddard Space Flight Center. These joint meetings provide a forum for Space Shuttle/Spacelab interface. Introduction by Hon. George A. Keyworth on national science and space policy. The volume includes Spacelab mission and space science plans, space platforms and stations, earth-oriented activities, space transportation and the 4th annual history program. Numerous illustrations and index.*

SHUTTLE/SPACELAB--THE NEW TRANSPORTATION SYSTEM AND ITS UTILIZATION, VOLUME 43, ADVANCES IN THE ASTRONAUTICAL SCIENCES, Eds. D.E. KOELLE, G.V. BUTLER, 1981, 342p, HARD COVER \$45; SOFT COVER \$35

*This volume is based on technical sessions of the Third DGLR/AAS Symposium held in Hannover, West Germany, April 28-30, 1980. The sessions cover Shuttle/Spacelab Utilization Program, Shuttle, Spacelab and related systems (development status), Shuttle/Spacelab missions and systems, instrumentation and experiments, and advanced systems and long-term programs. Cooperative efforts between Europe and the United States are emphasized. Index and numerous illustrations.*

SPACE SHUTTLE AND SPACELAB UTILIZATION--NEAR-TERM AND LONG-TERM BENEFITS FOR MANKIND, VOLUME 37, ADVANCES IN THE ASTRONAUTICAL SCIENCES, Eds. G.W. MORGENTHAUER, M. HOLLSTEIN, 1978; PART I, 400p, \$40; PART II, 465p, \$45

*These volumes, based on the proceedings of the 16th Goddard Memorial Symposium held in Washington, D.C., March 1978, are a sequel to the international meeting held in June 1976 in Bonn, Germany. Both meetings were sponsored jointly by the AAS and the German Astronautical Society (DGLR). Space Shuttle/Spacelab goals and perspectives are presented along with a systems update. Utilization of this program includes a wide gamut of plans and possibilities covering materials research, space processing experiments, communications and navigation experiments, Landsat missions, earth observation experiments, solar power, solar cells, crystal growth, selection of space personnel, space law, and space industrialization.*

UTILIZATION OF SPACE SHUTTLE AND SPACELAB, 1976, 760p, SOFT COVER \$30

*Proceedings of an international meeting held in Bonn, West Germany, June 2-4, 1976. Sponsored by the AAS and DGLR in cooperation with CNES (France), DFVLR (Germany), European Space Agency (ESA), NASA, and the National Research Council (Canada). This comprehensive volume consists of 38 technical papers, and some 425 illustrations and tables. Only 72 pages of text are in German; the rest is in English. Subjects treated include spacelab technology application, spacelab science utilization, advanced manned and unmanned space transportation system projects, a forum on space transportation systems, and industrial innovation by means of space technology.*

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## SPACE SAFETY AND RESCUE SYMPOSIA

These symposia held annually since 1968 by the Space Safety and Rescue Committee of the International Academy of Astronautics in conjunction with International Astronautical Congresses are now available for purchase through the American Astronautical Society. They are identified as follows:

<u>Proceedings No.</u>	<u>Location of Symposium &amp; Date</u>	<u>Publication</u>
1	New York City, USA (1968)	-- Volume 23, <i>AAS Microfiche Series</i>
2	Mar del Plata, Argentina (1969)	
3	Constance, West Germany (1970)	
4	Brussels, Belgium (1971)	----- Volume 24, <i>AAS Microfiche Series</i>
5	Vienna, Austria (1972)	
6	Baku, USSR (1973)	
7	Amsterdam, Holland (1974)	----- Volume 37, <i>Science and Technology Series</i>
8	Lisbon, Portugal (1975)	----- Volume 41, <i>Science and Technology Series</i>
9	Los Angeles, USA (1976)	---- In full in Volume 40, <i>AAS Microfiche Series</i> Abstracts in Volume 54, <i>Science and Technology Series</i>
10	Prague, Czechoslovakia (1977)	
11	Dubrovnik, Yugoslavia (1978)	
12	Munich, Germany (1979)	----- Volume 54, <i>Science and Technology Series</i> and Volume 39, <i>AAS Microfiche Series</i>
13	Tokyo, Japan (1980)	----- Volume 54, <i>Science and Technology Series</i> and Volume 41, <i>AAS Microfiche Series</i>
14	Rome, Italy (1981)	
15	Paris, France (1982)	----- Volume 58, <i>Science and Technology Series</i>
16	Budapest, Hungary (1983)	
17	Lausanne, Switzerland (1984)	----- Volume 64, <i>Science and Technology Series</i>
18	Stockholm, Sweden (1985)	

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